NR 445 Technical Advisory Group Meeting 5
June 22, 2000 Notes
(WEPCO Auditorium, Milwaukee
231 West Michigan St.)

TAG Attendance: Jim Beasom, Appleton Papers, Inc.; Terry Coughlin, Wisconsin Electric; Dan Daggett, WI Bureau of Public Health; Dave Gardner, Briggs &Stratton Corp.; Hank Handzel, WPC&PIW; Howard Hofmeister, Bemis Co.; Brian Mitchell, WI Cast Metals Assoc.; Susan Mudd, Citizens for a Better Environment; Anne Neudorfer, WI Cast Metals Assoc.; Tom Ravn, Serigraph, Inc.; Keith Reopelle, WI Environmental Decade; Rudy Salcedo, City of MKE Health Dept; Rob Sherman, Kraft Foods; Pat Stevens, WI Manufacturers & Commerce; Ty Stocksdale, SC Johnson; Eric Uram, Sierra Club; Liz Wessel, Environmental Policy Consultant; Ed Wilusz, WI Paper Council; Caroline Garber, WDNR; Andrew Stewart, WDNR; Jeff Myers, WDNR; Bart Sponseller, WDNR
Committee Attendance: Dave Boyd, B&S; Myron Hafele, Kohler Co.; Bob Heitzer; Ron Kilby; Lynn Knudtson, Future Foam; Matthew Lehman, Badger Mining; Mike McCauley, Quarles & Brady

Morning Session:

I. Welcome/ Introduction/Meeting Review (Caroline Garber - Environmental Studies Section Chief)

- Welcome
  - Caroline Garber welcomed TAG and committee members.
- Review of Meeting Notes
  - TAG members offered corrections and comments. They have been addressed in the mean time.
- Review of Meeting Agenda
  - C. Garber reviewed the agenda. She noted that modeling would not be considered today, but would be addressed in August because John Roth and Ty Stocksdale need time to discuss some issues. Caroline then asked for comments and none were offered.

II. Follow-up from Meeting 4

A. Analysis of Setting Table 3 Threshold Levels at 10^{-5} vs. 10^{-6} Risk Level

Andy Stewart, DNR Air Management Engineer

Purpose: To present and discuss impact on emission levels of setting the threshold level at 10^{-5} vs. 10^{-6} risk level

- In response to a request for a comparative analysis of the 10^{-5} vs. 10^{-6} risk level, Andy Stewart, DNR Air Management Engineer, presented some materials. Referring to a table entitled "Table 3 Chemicals: Comparison of NR 445 Threshold Alternatives," Andy looked at the impacts of the different proposals. Andy used the 25 ft or smaller stack threshold in his analysis. Andy noted column 7, which indicates the difference between the 10^{-5} and 10^{-6} risk levels in pounds per year for both Table 3A and 3B chemicals. He noted that the difference is smaller than 10 lb/yr after the first 63 chemicals.
- A. Stewart noted that a question of feasibility to measure and quantify chemicals at low levels occurs. For this reason, the differences between the two risk levels at some point become moot. For sake of this discussion, a level of 10 lbs/yr was used to illustrate this point. Andy noted that the largest differences between the 10^{-5} and 10^{-6} risk levels occur when there is a blank in column 5 (Current Table 3) or in column 6 (Difference between current & 10^{-5}). Blanks indicate new chemicals so it is not possible to do the comparison. In addition, some of the other large differences include chemicals that were shifted from Table 1 (acutes) to Table 3. This is not a direct comparison for Table 1 chemicals.
- Andy then discussed another table entitled "Comparison of Current, 10^{-5} and 10^{-6} Thresholds Proposed Table 3A." This table compares the existing threshold (column 4), the "10-5 Cancer threshold <25 ft stack (lb/yr)" in (column 6), and the "10-6 Cancer threshold <25ft stack (lb/yr)" (column 8) for each Table 3A chemical. The number of sources impacted by the various threshold levels is indicated as well. The table is a quick reference to see how many sources the

lower threshold would affect. It only represents what the WDNR knows i.e., it only represents those sources that report to the WDNR. Some of the sources report at levels below the current Table 3 thresholds but they do not have to now. Andy noted that the next step would be to see who would fall out due to exemptions.

- *Qu.* - P. Stevens, WI Manufacturers & Commerce, asked if the zeros in the columns indicated null values or if they were unknowns.
- *Ans.* – A. Stewart said that most of them are unknowns and a "?" could be placed in those columns. Andy will correct this.

- Next, A. Stewart explained the handout entitled "Comparison of the Number of Affected Sources for Current, 10^{-5} and 10^{-6} Based Thresholds Proposed Table 3A Compounds." Referring to the bar charts attached to the table, Andy explained that the bars represent percentages and that the total number of sources for each HAP must be kept in mind when evaluating the information. The first page of bar charts represents Table 3A compounds and the second page of bar charts represents the top 6 (in terms of mass emissions) Table 3B compounds.
- Andy noted that methylene chloride had been moved from Table 1 to Table 3.
- *Qu.* – Ed Wilusz, WI Paper Council, asked what the new threshold would be for a chemical in Table 3 if a chemical did not have a potency factor.
- *Ans.* – A. Stewart responded that the threshold would be 10 lb/yr.
- *Qu.* – E. Wilusz asked if the existing thresholds capture the vast majority of the sources, would the same be true for methylene chloride.
- *Ans.* – Ty Stocksdale, SC Johnson, responded that it would not be true. It depends on the sources.
- L. Wessel, environmental policy consultant, said that the environmentalists would rather have the 10^{-6} threshold than the 10^{-5}. She added that they are also interested in the binning approach.
- P. Stevens commented that the examples Andy presented were good but that a cursory review of changing the thresholds does not appear to include many more sources. He asked if the DNR staff could get a better estimate of the number of sources affected.
- A. Stewart said that the Air Bureau asked for more than 100 chemicals to be voluntarily reported as part of the 1999 Air Emissions Inventory but these chemicals would not help complete the picture to a greater degree. Andy suggested that some industry sector surveys could be performed to gather more information on affected sources. Caroline Garber added that this would be an area where it would be very useful for TAG members to collect additional information from the groups they represent.
- *Comment* - T. Ravn, Serigraph Inc., added that benzene is a trace chemical in many products and processes. It is often listed as less than 1% and as a result of lowering the threshold many more companies could be included. The value of the information provided by companies pulled into the program may yield very little useful information in terms of results.
- *Response* - A. Stewart said that this pointed out the importance of addressing compliance methodology and is the next step; the staff would like to transition into this and other issues.
- *Comment* – J. Beasom, Appleton Papers, Inc., suggested using log/log graph paper and to use probability to estimate the number of sources that would be included since sources are normally distributed.
- *Response*- C. Garber said that staff would speak to a statistician to gain more insight. (NOTE: The Bureau does not have statistically valid or complete information in this area and thus a statistical/probability analysis is not appropriate.)

- Next, Andy Stewart presented information on the binning approach. He explained that Table 3A and 3B chemicals were considered and that bins were set based on potency factors regardless of whether they were 3A or 3B. Thresholds were set at 100 lb/yr, 10 lb/yr and 1 lb/yr. The only exception to the binning process is PCBs and dioxins; they were left at current levels.
- C. Garber said that she would like some response to the following question. Is there still interest in the binning approach as an alternative? She asked for input on its advantages and disadvantages from TAG members.
- *Comment* – P. Stevens said that what he takes away from this is that the DNR doesn't have enough information on the number of sources that would be impacted by the changes. He asked if it would be better to have more and accurate information. He suggested not moving ahead at this time.
- *Response* – C. Garber stated that this is about a rule for tomorrow, not just today or the past, and that it is appropriate to continue to move forward.
- *Comment* – P. Stevens suggested that DNR staff cannot justify a regulation based on the lack of information.
- *Response* – A. Stewart said that standards are set for chemicals that have identifiable health effects at these levels and therefore the push forward is justifiable and is consistent with how NR 445 was originally promulgated.
- *Comment* – L. Wessel asked P. Stevens if he is volunteering the constituents that he represents to provide the necessary information for the analysis. She suggested that perhaps it would be best to discuss NR 438 and not NR 445 until more information is available.
- *Response* – C. Garber and A. Stewart replied that the DNR does have a significant amount of information on certain chemicals and that improvements would not be achieved for a number of chemicals without this rule revision.

- At this point, C. Garber suggested guiding the discussion back towards the comparison of the binning and risk approaches.
- *Comment* - L. Wessel said that when she did an early analysis based on the binning approach, it appeared to simplify things.
- *Comment* - E. Uram, Sierra Club, stated that he is concerned with the 10^{-5} approach. He said that reducing the risk could set a precedent and this could turn into a slippery slope. He prefers the 10^{-6} approach to the 10^{-5} approach. However, when comparing the risk approaches to the binning approach, he prefers the binning approach, although he would like to see different numbers used in the binning approach.
- *Comment* – M. Hafele, Kohler Co., stated that he did not see a noticeable gain when comparing the two risk approaches. He added that it seems like a lot of work to capture very few more sources with the 10^{-6} risk level. As far as explaining and reporting, he would prefer to work toward the 10^{-5} approach than the binning approach.
- *Comment* – D. Daggett, WI Bureau of Public Health, explained that when the 3 bins in the binning approach are considered, there is a dramatic range from 10^{-1} to 10^{-7}. He added that the question is where to draw the binning lines. Dan noted that the 10^{-5} value is locked in for public health and makes more sense scientifically.
- *Comment* – J. Beasom stated that there appears to be a lot of confusion in the room as to what the 10^{-5} risk level actually means. He said that it is not the increased cancer risk for 1 person in 100,000. Rather it is the increased risk of the "most exposed individual" for a period of 70 years. This individual must reside at the same residence in the same exact place in the plume for 70 years. To put it in perspective, he said that the absolute risk of a person in the United States to be struck by lightning is 1 in 37,000.
- *Comment*- D. Daggett agreed with J. Beasom, but added that the current proposal does not consider additive or synergistic effects.

- *Comment* – T. Ravn questioned the ability to track small quantities of toxic emissions from a stack. He asked, for example, how would 1 lb be handled. He commented that white out could be used as an example at these levels. Tom added that facilities would not commit resources to make the switch if they must change procedures because the costs could be in the tens of thousands of dollars.
- *Comment* – L. Wessel said that the difference is comparing one company versus a whole group of printers. She said that the real issue is prevention. Why not capture more sources at 10^{-6} so cancer may be prevented.
- *Comment* – T. Ravn said that his point is that he doesn't know how companies will be able to track 10 lbs of material much less 1 lb.
- *Comment* – T. Stocksdale said that originally some of the threshold levels were set based on weak assumptions and information but that the end goal was to achieve a compromise. He said that the industry's issues are being considered as if they were the starting point for the discussion. The assumptions in the modeling and risk assessment are conservative, he added. His point is that both industry and environmentalists have relevant implementation issues but that many of these issues must be set aside to get to the major implementation issues. He said that there is no way that industry can track down 10 pounds per year. Ty gave an example that the weighing devices for incoming materials are not sensitive enough to measure to that degree.
- *Comment* – C. Garber said that the DNR staffs' goal is to present a request for public hearing with a draft rule to the Natural Resources Board (NRB) by December 2000. We must be ready 6 weeks before that date for internal review. Then a number of public hearings will be held around the state and comments will be received before going back to the NRB. She added that we (the TAG) should be finalizing things by October. We must spend time on implementation and have good, sound policy that is workable. Industry and regulators must be able to work with the product.
- *Qu.* – R. Salcedo asked how the things that the DNR staff would like to accomplish before December fit in with the current issues.
- *Ans.* – C. Garber replied that a number of issues would be considered. These issues include binning vs. risk, 10^{-5} risk at the fence line with enforceable limits in permits, etc. The ideas become less workable if the binning approach is selected. Ideally, we would now like to discuss some implementation issues.
- *Qu.* – R. Salcedo said that the 10^{-5} vs. 10^{-6} issue set off a lot of discourse and that TAG members need more time to digest and consider the policy issues and impacts. This issue is very important and members need more information.
- *Qu.* – B. Heitzer asked when a company can rely on a Materials Safety Data Sheet and when it has to do further investigation e.g., tracking trace levels. At what point will a facility have to go beyond relying on the data sheet?
- *Ans.* – A. Stewart replied that further investigation would likely be necessary only if there is more current information on the chemical or the information is inconsistent with the information the DNR has.
- *Comment* – S. Mudd said that implementation issues need to be put on hold. She feels that the TAG needs to get to policy issues at this point. It sounds like industry says that it is hard to measure at the 10^{-6} levels. She asked if industry is suggesting that the appropriate risk for policy choice is 10^{-5}.
- *Comment* – J. Beasom said that the 10^{-5} vs. 10^{-6} issues is a small part of the actual problem that anyone would actually be impacted to the extent of the "most impacted individual." The risk is actually much smaller and there is no true difference between 10^{-5} and 10^{-6} at all.
- *Response* – S. Mudd said that she is not certain that she agrees with J. Beasom but that she hears him. We must recognize at some point that it is not just one chemical but a number of chemicals in combination that impact the public.

- *Comment* - J. Beasom said that the conversation deals only with air toxics and NR 445, not water or other media. These are not problems that can be solved here in this forum.
- *Comment* – H. Handzel said that he does not like this debate. He said we had this talk 15 years ago. The people in this room do not have the expertise to address Susan Mudd's issue. We are here to discuss the practical impacts of the proposed policies.
- *Comment* – C. Garber said that she had a suggestion as to how the group may move forward. She said that the DNR staff would prepare a technical paper on the modeling that would present the assumptions used and present information on the conservative and non-conservative aspects of these assumptions. This paper would be included with the Green Sheet package to be presented to the Natural Resources Board. She added that we are repeating ourselves over and over and that the TAG might need to agree to disagree.
- *Question* – P. Stevens asked what the timing for the release of the technical paper and the memo is to the NRB. He feels that it should also include what is going on at the federal level.
- *Answer* – C. Garber stated that this would only be a technical background paper on modeling. The background memo to the NRB will address the other issues.
- *Comment* – E. Wilusz commented that based on what he saw today, it seems that the available information is limited and that the existing thresholds appear to already catch a majority of the sources. He asked Andy Stewart if he would do any further analysis. Ed said that it would be helpful to have another "screen." It would be useful to get a handle on whether the existing thresholds catch ~ 97% i.e., the majority of the emissions or not. Is this true across the board? This would be useful to see if the existing system works already or if the proposed solution would work.

B. Proposal for Compliance Option for Table 3 Compounds

Jeff Myers, DNR Air Management Toxicologist

Purpose: To share feedback received from TAG members on the issue of Table 3 compounds with no unit risk factors, and to present and get feedback on a proposal for this issue.

- Jeff Myers made a presentation entitled "The Risk Based Compliance Alternative for Table 3 Compounds." A 4-page handout accompanied the presentation.
- J. Myers began by explaining the proposal introduced at the April 27, 2000 TAG meeting. A facility may elect to take enforceable emission limits in its permit if it can demonstrate through site-specific modeling that total facility emissions of all Table 3 HAPs do not exceed 10^{-5} risk beyond the fence line. This is an option in lieu of BACT/LAER for facilities whose allowable emissions exceed the threshold levels.
- Jeff then provided some background information for the compliance option proposal. Industry representatives expressed concern about the time, money, and lack of flexibility associated with BACT/LAER for emissions that do not pose a great risk. Environmental representatives expressed concern about the risks associated with facility-wide emissions i.e., cumulative risk. The Department's interest is to protect public health with existing resources.
- Details of the Proposal: Emissions of all Table 3 compounds are included in the assessment. This includes emissions from NR 445 exempted sources as well as emissions from MACT sources. Site specific modeling uses operational parameters that are to be included as permit conditions. Risk assessment is performed using the best available modeling techniques to estimate the impact from hard to model sources. Modeling will use site-specific information and local meteorological data. Additive impacts will also be considered in cases where multiple Table 3 compounds are released.
- Originally, the proposal was to preclude a facility from this option if it emitted <u>any</u> Table 3 emissions with an unknown potency factor. Jeff had asked for feedback from TAG members and only received 2 responses. The first response voiced a concern about the emissions of < l

lb/yr of POM (combustion of virgin fossil fuels). The second noted that most facilities that emit Table 3 compounds with unknown potency factors emit < 10 lb/yr.

- The revised proposal would allow a facility to exclude allowable emissions of Table 3 compounds with unknown potency factors from the modeling assessment if the emissions are < 10 lb/yr. If allowable emissions are greater than 10 lb/yr, the facility may not use this compliance option. The rationale for this revised proposal is that the NR 445 proposed threshold for Table 3 compounds with unknown potency factors is 10 lb/yr.
- Sources currently meeting BACT or LAER would be able to utilize this option in lieu of control requirements. In addition, permit restrictions taken to use this compliance option could be removed in the future provided that the source meets applicable BACT or LAER emission standards prior to doing so.

- *Qu.* – T. Stocksdale asked how radon would be handled.
- *Ans.* – J. Myers that the Department is looking at this issue now and that they may decide to delist radon since it is not used in production and NR 445 applies to stationary sources only.
- *Qu.* – D. Gardner asked if chemicals that are emitted at low levels would have to be listed for this option.
- *Ans.* – A. Stewart replied that the allowable emissions are based on the maximum capacity of the facility.
- *Qu.* – H. Hofmeister asked if all exemptions are removed then would aerosol sprays used in maintenance also need to be included.
- *Ans.* – A. Stewart stated that guidance in the past says that emissions from maintenance activities would not need to be included. Andy also added that guidance would be provided for greater clarification on what emissions sources would need to be included in the analysis for this compliance option.
- *Qu.* – E. Wilusz asked if the staff has an idea of what kind of facility could take advantage of this off-ramp.
- *Ans.* – Jeff said that only 2 TAG members responded to his request for input on this issue so he would need to perform more analysis based on information provided by TAG members.
- *Comment* – T. Stocksdale said that combustion of fossil fuels may produce some polycyclics, which may throw those with boilers out i.e., not allow them to use this option.
- *Response* – C. Garber said that the Department needs to define more clearly what it means by all sources and this would then need to be presented to TAG members' constituents. She asked if there were any strong objections to this approach.
- *Comment* – P. Stevens said that his constituents expressed a lot of concern with the original proposal.
- *Qu.* – R. Salcedo asked if off-ramps are the same as variances.
- *Ans.* – A. Stewart said that off-ramps are not the same as variances. Off-ramps are elected options that may allow a facility to avoid any further review. A variance, on the other hand, gets companies out of expensive controls for small amounts/concentrations that are difficult to control. C. Garber added that the off-ramp does not necessarily mean less regulation. It adds flexibility and reduces some of the administrative process.
- *Qu.* – H. Hofmeister asked if a facility emits > 10 lb/yr of a chemical with an unknown potency factor, would it be able to use the option if it used BACT/LAER controls or other methods to get the chemical emission below 10 lb/yr.
- *Ans.* – A. Stewart said yes, that the facility would be able to do this.
- *Qu.* – E. Uram asked how many chemicals do not have potency factors.
- *Ans.* – Jeff Myers said that approximately 76 chemicals fall into this category.
- *Qu.* – L. Wessel asked if there have historically been variances accompanying this process.

- *Qu.* – S. Mudd said that originally she understood that BACT/LAER would not apply to this option.
- *Ans.* – A. Stewart said that this is not an alternative to a variance. It is only an alternative to have someone show a BACT/LAER process. If a compliance option such as this were not included with a proposal to use a risk-based approach to set threshold levels for Table 3 then the variance process would likely be involved when very small emission levels need to be controlled.
- *Qu.* – S. Mudd asked what other mechanisms could be used to bring the risk level down.
- *Ans.* – C. Garber responded that a facility could reduce the number of production hours, and there are other possibilities. It may need to do nothing if actual emissions are below the 10^{-5}-risk level.
- *Qu.* – J. Beasom asked if an analysis had been done, based on NR 438 data, for those who may benefit.
- *Ans.* – A. Stewart said that an analysis has not been done. It would require modeling and a stack-by-stack analysis. The end result, however, would not yield a lb/yr value that would be applicable to all sources since each source is unique.
- *Comment* – D. Boyd, Briggs & Stratton, commented that relative to his own facility, the original proposal would have blocked his company from using the option because of polycyclics emitted during natural gas combustion. His analysis showed they emitted polycyclics in micrograms per year i.e., extremely small amounts. Now, the revised proposal would allow them to put aside looking at chemicals emitted in small amounts and permit them to focus on carcinogens emitted in greater quantities.
- *Comment* – J. Beasom said that he supports the revised proposal and indicated that it will probably only apply to smaller facilities.
- *Comment* – R. Sherman, Kraft Foods, said that he supported the new proposal because it is no longer an absolute zero. He likes the flexibility.
- *Qu.* – E. Uram asked how many facilities will emit 10 or more of the chemicals with unknown unit risk factors (u.r.f.).
- *Comment* – D. Gardner stated that any home burning natural gas would emit 3 of the chemicals with unknown u.r.f.s at very low levels.

C. Proposal for NR 438 Listing of Chemicals with TLVs >99 ppm and Great Lakes Chemicals

Andy Stewart, DNR Air Management Engineer

Purpose: To discuss and get feedback on a revised proposal which includes facility-wide emissions reporting, no impact on emission fees, and replacing the term "toxic" on reporting forms.

- Andy Stewart stated that the inventory does not currently have the ability for someone to report at a facility-wide level. The inventory software would need to be reprogrammed with this option. Until the DNR can reprogram the inventory, the reporting is only available at the process level.
- C. Garber said that the goal for the chemicals under discussion is to have reporting on a facility-wide basis. The intent is to report TLVs >99 ppm and Great Lakes chemicals at the facility level and not to require process level information for them.
- *Comment* – H. Hofmeister noted that for his facility, he would still have to speciate and note which controls he has on in order to quantify the facility-wide emissions.
- *Response* – C. Garber suggested that he sit down with the DNR staff to explore other possible options.

- A. Stewart finished by saying that the DNR does not intend to bill for chemicals that are not already billable at this time. This is 3 of the 17 chemicals. The other 14 are currently billed as VOCs or Clean Air Act chemicals.

Afternoon Session:

III. Report from Public Health Sub-Group
Dan Daggett, DHFS Toxicologist

- C. Garber introduced the topic by restating that the TAG is still operating on the original ground rules set forth by Lloyd Eagan. Innovative approaches will be considered on an elective basis.
- *Qu.* – H. Hofmeister asked what the end-use of the report generated by the public health sub-group would be.
- *Ans.* – C. Garber said the report would feed into final outcomes by addressing certain health issues. Issues will be brought up and discussed by the TAG, however, this will not be a TAG report.
- *Comment* – T. Stocksdale urged a great deal of caution. He said that such a situation may cause others to ask for the same benefits to create other groups.
- *Qu.* – H. Hofmeister asked if the DNR staff were in the position to consider what T. Stocksdale and J. Beasom had mentioned about the conservative nature of the model.
- *Ans.* – C. Garber said that the goal for the technical background paper on modeling is to state where the model is protective and conservative and where it is not.
- *Qu.* – P. Stevens said that the point is that TAG members would like to be able to comment on what the sub-group puts together. There is nothing that could prevent other TAG members from writing something else.

- Dan Daggett briefly reported on the recent developments in the Public Health Sub-groups meetings. On June 8, 2000, Dr. Jamie Schauer, a TAG member from UW - Madison, spoke about atmospheric chemistry and the characterization of atmospheric pollutants. Dr. Schauer stated that the modeling does not account for secondary reactions that occur in the atmosphere after emission from facilities. Not only can secondary chemicals be formed but chemicals may also degrade or be deposited to the earth's surface. The point is that the model appears to be conservative but it should be recognized that there are a number of uncertainties and unknowns inherent in the model. D. Daggett then noted the 3 papers that Dr. Schauer provided for TAG members to read. He also noted that the public health sub-group is in the process of refining a table listing their concerns that was previously presented by the sub-group.

IV. Progress Report on Rule Revision
Caroline Garber, DNR Environmental Studies Section Chief
Purpose: To present synopsis of decisions made and pending, and present a partial listing of issues to be addressed in the next phase of the rule revision development.

- C. Garber said that since this is the fifth meeting, she feels that it is time to take a snapshot of where we currently are and then to begin looking at implementation issues. She provided a DNR staff snapshot entitled "Revisions to Wis. Adm. NR 445 Status Report as of June 22, 2000," a 3-page handout. The status report represents what DNR staff believe to be the results of the TAG dialogue to date, understanding that it does not represent a consensus and that individual TAG members may not support each item. The TAG will now be focusing more of its attention over the next few months on implementation and compliance related issues rather than setting emission standards and threshold levels, although some dialogue will continue on those issues too.

ISSUES THAT NEED FURTHER DISCUSSION OR ANALYSIS ARE IN ITALICS.

Phase one: Emission Standards, Threshold levels and Related Issues

Decision Criteria for Listing Chemicals in NR 445

Tables 1 (and 4), 2 and 5:

Chemicals with TLVs Listed by ACGIH, Except:

- Those with TLVs > 99ppm
- Simple Asphyxiates
- Those with TLVs > 10 mg/M3

Table 3:

Chemicals Listed by Both IARC and NTP as Known or Suspected Carcinogens

Pending:

Reality Check Review
Review of 9th Report to Congress
Review of Year 2000 TLV Listings
Listing on Multiple Tables

Decision Criteria for Establishing Threshold Levels in NR 445

Modeling:

- 20 years of Meteorological data
- Worst Hour, Worst Day, and Worst Year
- More Conservative of Rural or Urban Coefficients
- 3 Stack Heights (11, 25 and 75 foot stacks)
- ISCST3 Model (including Downwash Effect)
- Model Does Not Consider: Cumulative, Additive, Synergistic or Antagonistic impacts of emissions of air Toxics

EMISSION LEVELS:

Tables 1(and 4), 2 and 5: Not To Exceed AAC from Source

Pending:

Table 3: Not To Exceed 10-5 Risk Level from Source

OPTIONAL DEMONSTRATION OF COMPLIANCE WITH THRESHOLD LEVELS:

TABLES 1 (AND 4), 2 AND 5: SECOND LEVEL SCREENING (SITE SPECIFIC MODELING)
TABLE 3: SITE SPECIFIC MODELING OF ACTUAL EMISSIONS AND INCLUDE ENFORCEABLE LIMITS IN PERMIT

PENDING:

SOME DETAILS RE: SECOND LEVEL SCREENING FOR TABLES 1(4), 2 AND 5

DECISION CRITERIA FOR ESTABLISHING THRESHOLD LEVELS IN NR 438

NR 445 CHEMICALS:

SET THRESHOLDS AT 50% OF NR 445 THRESHOLD LEVEL, EXCEPT:

- RETAIN EXISTING THRESHOLD LEVELS FOR DIOXIN AND PCBS
- SET THRESHOLD AT 10 LBS/YEAR FOR ALL MERCURY EMISSIONS

PENDING:

NON-REGULATED CHEMICALS OF CONCERN:
TLVS> 99 PPM: 100,000 LBS/YEAR FROM A FACILITY
GREAT LAKES CHEMICALS: 10 LBS/YEAR FROM A FACILITY

NO IMPACT ON EMISSION FEES

COMPLIANCE OPTIONS

TABLE 3:

- ENFORCEABLE LIMITS IF MODELED FACILITY-WIDE EMISSIONS DO NOT EXCEED 10-5 RISK AT PROPERTY BOUNDARY OR BEYOND

PENDING:

HOW TO HANDLE COMPOUNDS WITH NO KNOWN UNIT RISK FACTORS

OTHER

CHEMICALS WITH TLVS > 99 PPM:

DNR WILL CONDUCT SITE SPECIFIC EVALUATION IF POTENTIAL EXISTS TO EXCEED THE AAC. IF SITE SPECIFIC EVALUATION SHOWS POTENTIAL EMISSIONS EXCEED AMBIENT AIR CONCENTRATIONS AT OR BEYOND THE PROPERTY LINE, EMISSION LIMITS NOT TO EXCEED AAC WILL BE SET IN PERMIT.

- C. Garber said that she would like to focus on Phase II (P. 3 of the handout) (issues 1 through 7).

PHASE TWO: (PARTIAL LISTING – ISSUES WILL BE ADDED)

1. *Measurement of Emissions at Low Concentrations For NR 438 and NR 445*

2. *Compliance Schedules:*
   - *Integration Into Permit Process*
   - *Compliance Certification Prior to Permit Issuance for Existing Sources*
   - *New and Modified Sources*
   - *Integration with Other Environmental Regulatory Requirements*

3. *MACT and NR 445 for Existing and New/Modified Sources*

4. *Compliance Options:*
   - *Options that Encourage Pollution Prevention, Environmental Management Systems, Environmental Contracts and Other "Innovative" Alternatives*
   - *Industry Sector Approaches (e.g. Foundries, Pulp & Paper)*
   - *Community approaches (e.g., Similar industries in a relatively small geographic area)*
   - *Innovative/Flexible compliance Options where there are known additive impacts (e.g., where two or more chemicals impact the same end source)*

5. *Rule Drafting:*
   - *Combined Tables (Listing by Chemical Name and by CAS #)*
   - *Language Clean-Up*
   - *Emission Standards in Rule*
   - *Language to implement TLV>99 ppm "compromise" (i.e., enforceable limits for a source if there is a public health concern)*

6. *Harmonization with Other Environmental Requirements*
   - *Accidental Spills*
   - *Other?*
7. *Process to Update NR 445 on Regular Schedule*

V. Proposal for a Compliance Schedule

Andy Stewart, DNR Air Management Engineer

Purpose: To present and discuss a straw proposal (preliminary thoughts) for a compliance schedule for NR 445 and NR 438 revisions, including integration with permit and inventory processes.

- Andy Stewart presented the "Straw Proposal for Implementing the NR 445 Revisions."
- A. Stewart began by stating that he would like to present some concepts and propose some possibilities that will initiate discussions. He said that there are number of issues that must be addressed and that the protection of public health must be kept foremost in mind. Andy began by stating the goals for implementation including: effectiveness, efficiency, equity, speed and forward thinking.
- The effective date of the new emission standards would be immediate.
- The proposed date for compliance demonstration and certification of new standards for existing sources would be 3 years after the effective date of the rule revision. For new or modified sources the, compliance demonstration and certification would be immediate for the new standards.
- *Comment* – T. Stocksdale said that the Department would need to provide ways for the regulated community to show compliance. This demonstration would be especially difficult when quantifying small levels of emissions. The difficulty of demonstration may make the derivation of some numbers next to impossible.
- *Comment* – T. Ravn said that he would like to know how the DNR intends to staff this large effort.
- *Qu*. – E. Wilusz asked what the DNR plan is for handling permits?
- *Qu*. – H. Hofmeister asked for clarification with respect to new sources and how this would pertain to entire facilities.
- *Ans*. – A. Stewart, responding to H. Hofmeister's question, said that the issue is not new to this proposal and has already been addressed in permits on how to handle modifications and impacts on the entire facility as well as how to address federal standards as they develop. Additional information will be presented at the next meeting.
- *Comment* – L. Knudtson said that he would like to have a clear definition of modification.
- *Response* – A. Stewart said that modification is defined in existing air pollution rules. He also stated that changes to the inventory would be effective immediately with reporting taking place the first full calendar year after rule implementation
- *Comment* – T. Stocksdale said that the Department would have to consider the level of effort required of the regulated. He said that heroic efforts that cost 1000s of dollars per gram should not be expected.
- A. Stewart stated that the Department would like to have reporting on the inventory prior to sources needing to demonstrate compliance.
- Andy continued by listing the options (for getting new standards and requirements into permits), that are stated on side 1 of the handout. The options include the following:
  (1) At time of original issuance
  (2) Reopen permits already issued:
  - At time of modification
  - Due to newly promulgated MACT
  - Solely due to effort to revise NR 445
    - Required by NR 407.14(1)(b) – this states that there is mandatory reopening in some cases depending on how much time is left in the permit
    - Desired to implement revisions quickly

  (3) At time of permit renewal (this has already begun for operation permits)
  (4) Construction permit
  (5) Triggered by emission inventory reporting

Andy said that this is essentially a laundry list for getting new standards and requirements into permits.

- *Comment* – T. Stocksdale stated that the Department must consider the workload carefully so that they can use their work force appropriately.
- *Response* – C. Garber noted that the staff will speak to TAG members as well as to DNR permit engineers so that the implementation will work for both industry and DNR permit engineers.
- *Qu*. – P. Stevens asked if there have been any renewals yet.
- *Ans*. – C. Garber said that yes, there have been renewals.
- *Qu*. – S. Mudd asked what the actual yearly range is for renewal of the Title V permits
- *Ans*. – Caroline responded that the turnover of 5-year permits has just begun.
- *Comment* – T. Stocksdale suggested that construction permits should be given priority and that the handling of operating permits could be completed as it is convenient for the Department. Industry needs construction permits.
- *Qu*. – S. Mudd asked if there are any other permits that cycle regularly.
- *Ans*.- A. Stewart replied that only operating permits cycle regularly. Compliance demonstration is done at the same time for all facilities, while operating permits are completed as the Department has resources and time.
- *Comment* – B. Heitzer noted that the time of year is important. Companies could switch materials at any time and this may cause them to be out of compliance.
- *Response* – C. Garber said that this is the reason that the DNR staff is suggesting a 3-year lead time for existing sources.
- Andy Stewart then referred to the table on the backside of the handout. The table demonstrates how permits and proposed standards are broken down and how they get into permits. Andy gave an example that there may be no change in the standard but there could be a change in the thresholds that may require a facility to use material substitution, use controls or change a process. For example, if the benzene threshold drops, the standard would still be to use LAER, but a new source may have options of how it achieves the threshold level.
- *Comment* – T. Stocksdale said that this issue does lend itself to some analysis. He said that ultimate compliance must be considered. The first thing is to get compliance demonstration and the rest builds on this. He said that we do not understand all the ramifications of the proposal at this time and he continued to list a number of possible outcomes.
- *Qu*. – S. Mudd asked if Ty means that depending on the mechanism of compliance that an existing source chooses (or already has), a source may need different lengths of time to come into compliance.
- *Ans*. – Ty stated that the DNR staff may consider putting "as quickly as reasonable" in the revised rule language. He said that he is more concerned about smaller companies that cannot react as quickly to rules. The Department needs a system that is robust enough to handle these situations, but it will be difficult to foresee that exact situations.
- *Comment* – B. Heitzer said that subcontractors need to get numbers back quickly so they can see if they can bid on a project. Bob said, for example, small companies that make and coat parts for another company rely on quick timing in order to make a bid.
- *Comment* – L. Knudtson also noted that in certain cases, the military requires use of materials that cannot be used in general commercial applications and that the revised rule should also provide for this possibility.
- *Response* – A. Stewart said that they are talking about job shop situations. They would still need to take a look at emissions.
- *Comment* – T. Ravn said that the printing industry has the same issue. He said some subcontracted printing jobs require subcontractors to meet a company's specifications unless the subcontractor can prove that the substitution will work as well. This requires time.

- C. Garber said that she is hearing a few things. She created the following list.
  (1) It makes sense to have new sources comply when they apply for construction permits.
  (2) The DNR needs to design a robust implementation system that is flexible enough to address extenuating circumstances but that 3 years is generally enough time.
  (3) Job shop types of projects may have difficulties with the proposed revisions.
  (4) The approval process would need to be reviewed.

- *Comment* - R. Sherman said the DNR would need to allow time for new sources to adjust to the changes in the regulations. He said that plant design can take 3 to 5 years.
- *Response* – A. Stewart replied that all sources should comply with NR 445 whether they have a permit or not. If the standard applies, a source must comply.

VI. Establishment of a Sub-Group on Alternative Compliance Options

Caroline Garber, DNR Environmental Studies Section Chief

Purpose: To review charge to sub-group and solicit participants.

- Referring to a handout entitled "Charge to NR 445 Sub-Group on Compliance Options," Caroline Garber explained the goal of the sub-group. The goal of the sub-group is to create a regulatory system that prevents public health problems in the most cost-effective way and that takes advantage of new knowledge and innovative approaches. The charge to the NR 445 sub-group on compliance options is to provide suggestions and advice to the DNR and the TAG on the following issues:

(1) Alternative methods for demonstrating compliance with the revised NR 445. (An example is self-certification prior to permit issuance.)
(2) Compliance options that are elective alternatives for sources and that promote one or more of the following objectives:
    a. Pollution prevention
    b. Continuous environmental improvement
    c. Reducing the cumulative health impacts (additive impacts) of similar HAP emissions from one or more sources in a geographic area
    d. Reducing the health impacts due to synergistic, antagonistic, or secondary effects of HAP emissions
    e. Pilot testing new technologies or process/product changes to meet emission standards
    f. Measurement issues
    g. Other ideas

- Caroline asked for TAG members interested in participating on the sub-group. The following persons volunteered:
  (1) Howard Hofmeister
  (2) Ed Wilusz
  (3) Lynn Knudtson
  (4) Pat Stevens
  (5) Susan Mudd (or another environmental representative)

- *Qu.* - Susan Mudd said that she was confused about some of the terms used in the charge. She asked what is meant by "compliance options?" What is the universe of compliance options?
- *Ans.*- C. Garber responded that compliance options could be separated into two groups. One group is more of a regulatory nature and the other is of an elective nature e.g., alternative compliance demonstration for Table 3A and 3B chemicals in order to avoid BACT or LAER.
- *Qu.* – Susan asked if elective means voluntary and if it is still enforceable.

- *Ans.* – Caroline answered that this does not change the standard. For example, if a company were to pilot test a new technology, they could do it for 1 or 2 years and then address enforcement. The DNR staff realizes that there is some risk involved.
- *Qu.* – Susan asked if Caroline would like to have suggested wording changes now and Caroline said that now would be fine.
- Susan suggested that "pollution prevention" (term 2a) may have too broad a definition. She suggested narrowing the term to "changes in processes or materials that eliminate or minimize a pollutant." She also suggested that term 2b "continuous environmental improvement" is very broad.
- Caroline acknowledged Susan's suggestions and added that the list is open. She asked TAG members to submit suggested revisions to the charge to her.
- *Comment* - R. Salcedo would like to know how the compliance options sub-group would overlap with the public health sub-group.
- *Response* – C. Garber said that this is a group that may build off of what the public health group has suggested or already done. She would like the group to look at the ends rather than being prescriptive.

Caroline then noted that the next meeting will be in Oshkosh on August 3, 2000 from 9:30 AM to 3:30 PM. It will take place in Conference Rooms A & B, Coughlin Center, 625 East County Hwy Y, Oshkosh. Phone: 920-424-3050

- The September meeting will be held on 9/14/00 in room 027 of GEF II.
- Caroline requested that TAG members follow through on these issues:
    - Bring information on other state and federal rules that may have an impact on air toxics.
    - Communicate on the sub-group for alternative compliance options
    - Look again at the compliance option involving the 10 pound potency factors presented by Jeff Myers in the morning session.

Notes Prepared by: Bart Sponseller, Bureau of Air Management

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